



(11) EP 0 864 959 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 19.09.2001 Bulletin 2001/38

(51) Int Cl.7: G06F 1/00

(43) Date of publication A2: 16.09.1998 Bulletin 1998/38

(21) Application number: 98104490.2

(22) Date of filing: 12.03.1998

(84) Designated Contracting States:

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Designated Extension States: AL LT LV MK RO SI

(30) Priority: 12.03.1997 JP 7655597

(71) Applicant: MITSUBISHI CORPORATION Chiyoda-ku, Tokyo 100-0005 (JP)

(72) inventor: Saito, Makoto Tama-shi (JP)

(74) Representative: Neidl-Stippler & Partner Rauchstrasse 2 81679 München (DE)

(54) Data management system

To prevent piracy or leakage of data content, cryptography technique and electronic watermark technique are combined together and used. In a data content supplied to a user, a user data is entered as electronic watermark by a data management center, and the data content with electronic watermark entered in it is encrypted using a crypt key and is supplied. The encrypted data content is decrypted using a crypt key distributed from the data management center and is used. In case it is to be stored, it is encrypted using another crypt key. In case the data content is copied and transferred to another user, a user data of said another user is entered as electronic watermark, and a scenario to enter the user data of said another user as electronic watermark is registered at the data management center, and the data content with electronic watermark entered in it is encrypted using another crypt key and is supplied. When the validity of said another user is confirmed by the scenario, another crypt key is distributed to said another user. The encrypted data content is decrypted using another crypt key and is used. When it is to be stored, it is encrypted using a still another key. In case the data content has been copied and transferred illegitimately, it is possible by verifying the electronic watermark to identify the user who has copied and transferred the data content illegitimately.

Fig. 1 ΙP (1300 DATA MANAGEMENT CRETER CENTER DATA CENTER Sata Storing Sata Storing Valorisating Generation Distribution (5)11:700 (3):1:Kh1:Tm0 USBR 1 (4)Chalkhi⊷kai;Cha2 (4)Chalkhi-4ki (9)Calkai-4i (10)Hi-Calkai (11)Ouikai-4i (12)Hi-4i (14)Hi-Calkai (14)Hi-Calkai (3)Chu1kb1;Chu2) (18)Scenario (18)12:Th2:Te0 USER 2 (25)30 -Catha



EUROPEAN SEARCH REPORT

Application Number EP 98 10 4490

	DOCUMENTS CONSIDE	RED TO BE RELEVANT		
Category	Citation of document with income of relevant passa	dication, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Inl.CI.6)
Y	EP 0 709 760 A (MITS 1 May 1996 (1996-05- * abstract *		2	G06F1/00
A	* column 8, line 3 - * column 10, line 39 *	column 9, line 47 * 0 - column 12, line 32	1,3-7	
	* column 15, line 50			
Y	EP 0 665 486 A (AT 8 2 August 1995 (1995-	L T CORP) -08-02)	2	
A	* column 6, line 31		1,3	1
A	EP 0 704 785 A (MITS 3 April 1996 (1996-0 * abstract * * figure 1 *	SUBISHI CORP) 04-03)	1	
				TECHNICAL FIELDS SEARCHED (Int.CI.6)
				G06F
				H04L G11B
	The present search report has	been drawn up tor all claims		
	Place of search	Date of completion of the search		Examiner
	THE HAGUE	31 July 2001	Ar	butina, L
X:pa Y:pa do A:te	CATEGORY OF CITED DOCUMENTS infloutarly retevant if taken aforto uniterally retevant if combined with anot current of the same category chnological background in- written disclosure formedate document	E : earlier patent c after the fling c her D : document clae L : document clae	focument, but put date d in the application of for other reason	blished on, or n s

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 98 10 4490

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

31-07-2001

Patent document cited in search report		Publication date	Patent family member(s)		Publication date	
ΕP	0709760	Α	01-05-1996	JP US	8272745 A 5646999 A	18-10-199 08-07-199
EΡ	0665486	A	02-08-1995	US CA	5509074 A 2137065 A	16-04-199 28-07-199
				JP JP	3121738 B 7239828 A	09-01-200 12-09-199
EP	0704785	Α	03-04-1996	JP US	8185448 A 6069952 A	16-07-199 30-05-20

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82